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# Putting Psychosis in its Place

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The classic nosologic divide in psychiatry has been between neurosis and psychosis. Originally conceptualised as two distinct categories of mental illness, it was only the odd (irreverent) case that 'tipped over' from the former to the latter. Extensive research over the past decade and a half has upended this notion, blurring previously sharp diagnostic boundaries, reframing psychosis as a continuum, and casting the relationship between neurosis and psychosis in a very different light.

A continuum approach to psychosis grew rapidly in prominence around the turn of the 21<sup>st</sup> century. Recognising that hallucinations and delusions occur across a spectrum of intensity and severity in the population, researchers began to explore the occurrence of psychotic symptoms outside of the context of psychotic disorder. The term 'psychotic experiences' was adopted to describe these phenomena at a population level. This referred to perceptual abnormalities and unusual thought content that were phenomenologically akin to the hallucinations and delusions experienced in psychotic disorders but were typically associated with at least some degree of intact reality testing (i.e., the individual recognised these experiences as a product of their own mind). See Figure 1.

Psychotic experiences emerged as rather prevalent phenomena, with epidemiological studies finding that approximately 7% of the general adult population reported them (1). Psychotic experiences were not, however, distributed randomly in the population; rather, research began to show that psychotic experiences clustered with general measures of non-

psychotic psychopathology (2). Many studies (of seemingly disparate mental disorders) found the same thing: psychotic experiences occurred at high prevalences right across the diagnostic spectrum.

The above was elegantly demonstrated by John McGrath and colleagues in the current issue using data from the WHO World Mental Health Survey (3), a unique cross-national sample of 31,261 adults in eighteen different countries. The researchers looked at the relationship between psychotic experiences and 21 mental/behavioural/addiction disorder diagnoses, divided into five categories: mood disorders, anxiety disorders, eating disorders, impulse control disorders and substance use disorders. Far from being restricted to psychotic disorders, psychotic experiences were predicted by all mood disorders, all anxiety disorders and all eating disorders.

Psychotic experiences were also predicted by three of four impulse control disorders – attention deficit hyperactivity disorder, oppositional defiant disorder and intermittent explosive disorder, though not conduct disorder. The lack of relationship between conduct disorder and psychosis is intriguing. What are the implications for how we conceptualise conduct disorder when it, alone of the mental and behavioural disorders, has no apparent psychotic dimension? How does it fit with the other disorders with which it is listed in the DSM? It is a thought-provoking finding and one worthy of further study.

Within the final category of disorders (addictions), psychotic experiences were predicted by alcohol

abuse and dependence but, curiously, not by drug abuse or dependence. Taken against a backdrop of extensive research to date demonstrating psychotogenic effects of cannabis and many other substances, this is an unexpected finding. Overall, though, what the results clearly demonstrate is that psychosis emerges in a proportion of illnesses right across the diagnostic spectrum.

Of note, the DSM-5 Depressive and Bipolar disorder chapters do include the specifier, 'with psychotic features'. However, at the same time, it is important to remember that psychotic experiences typically do not meet the threshold of fully impaired reality testing required to be considered fully psychotic. Therefore, even in the case of depressive and bipolar disorders, a 'with psychotic features' specifier is typically not applicable to individuals who have psychotic experiences. This leaves a major gap in the recognition of the presence of 'broad' psychosis in the spectrum of (ostensibly) non-psychotic mental disorders.

Does any of this have clinicopathological significance? Or is the presence of psychotic experiences in non-psychotic mental disorders only of interest to pedantic psychopathologists? In fact, we have long argued that psychotic experiences represent transdiagnostic clinical markers of psychopathology severity, and increasing data support this position. Research shows, for example, that psychotic experiences, when present in individuals with 'neurotic' disorders, predict poorer illness course (4), poorer socio-occupational functioning (5), poorer neurocognitive functioning (6,7), more multimorbid psychopathology (5) and higher risk for suicidal behaviour (8). Accurate assessment and clinical documentation of psychotic experiences, then, is not just a matter of nosologic pedantry but of substantial prognostic importance.

While we consider the broader presence of psychosis in neurotic disorders, it is also important to reflect on the corollary – neurosis in psychotic disorders.

Diagnostic hierarchy rules are often used to exclude 'neurotic' diagnoses in patients with schizophrenia. For example, symptoms that would in their own right fulfil a diagnosis of depression are often, instead, re-framed as negative symptoms of psychosis (9). This practice overlooks the fact that depressive disorders are in fact common in psychosis (indeed, Uptegrove and colleagues have recently argued that depression may, in fact, be a core feature of psychosis, lying on the severe end of a dimension of affective dysregulation [9]) and warrant treatment – be it psychological, pharmacological (or both). What is more, research shows that treatment of non-psychotic disorders in individuals with schizophrenia can lead to improvements in not alone the neurotic disorder itself but also significant improvement in schizophrenia. De Bont and colleagues, for example, recently demonstrated that treatment of post-traumatic stress disorder (PTSD) in individuals with psychotic disorder, compared to treatment of psychosis alone, led to high rates of remission from PTSD but, at the same time, also led to increased rates of remission from schizophrenia itself (10). This finding demonstrates the importance of identifying and treating comorbid disorders in individuals with psychotic illnesses. We are quick, it must be noted, to recognise comorbid substance use disorders in psychosis – it is time that we became equally adroit at identifying (and treating) comorbid affective, anxiety and trauma/stressor-related disorders.

## Conclusion

The time has come to look beyond the idea of psychosis as a distinct category of mental illness, separate from other mental disorders. An overwhelming wealth of research now supports the idea that psychosis may, in fact, be a feature of mental disorders right across the diagnostic spectrum. Psychosis does not fit neatly into one section of the DSM; on the contrary, it should have a place in every chapter.

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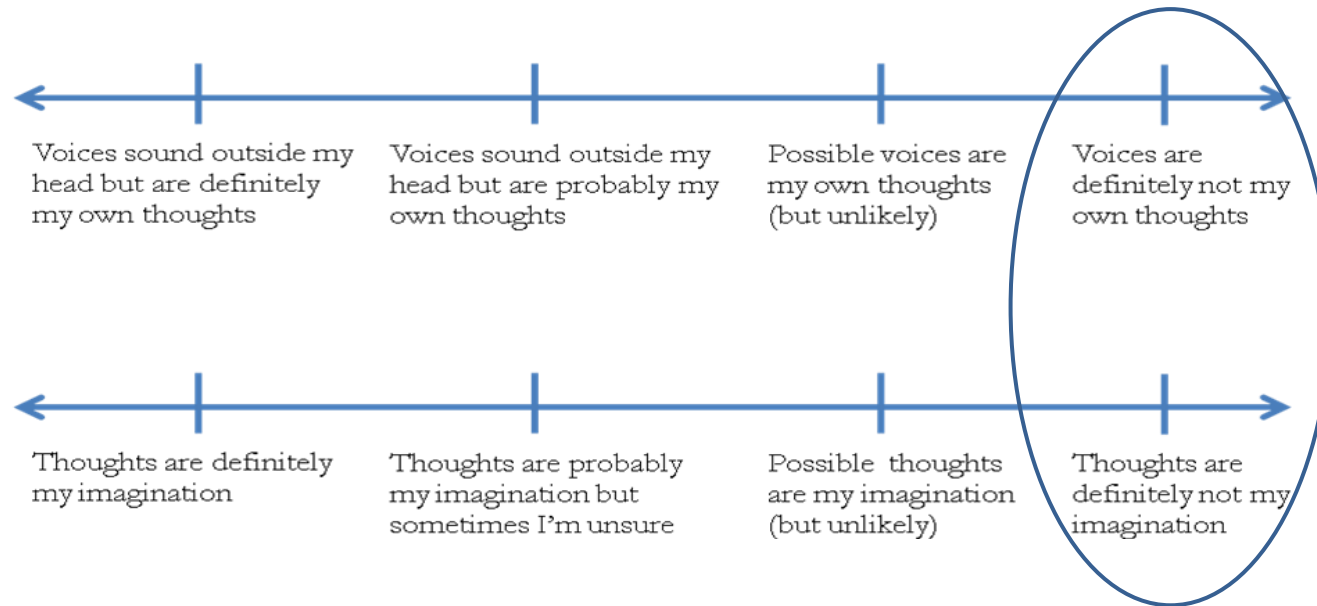
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**Figure 1:** Psychosis as a Continuum: Perceptual Abnormalities and Unusual Thought Content<sup>a</sup>. Only the circled portion of the continuum represents experiences that are fully psychotic; the experiences in the remainder of the continuum represent psychotic symptoms that are attenuated to varying degrees.



<sup>a</sup> From Kelleher I, Cannon M: SOCRATES assessment of perceptual abnormalities and unusual thought content. Royal College of Surgeons in Ireland, Department of Psychiatry, e-publications@RCSI, Jan 1, 2014 (available at <http://epubs.rcsi.ie/psychart/19>).